Polemonium viscosum Nutt.

skunk polemonium
Polemoniaceae (Phlox Family)

Status: State Sensitive
Rank: G5S1S2

General Description: Adapted from Hitchcock et al. (1959): This low perennial arises from a stout taproot and a branched, woody persistent base and is up to 16 in. (20-41 cm) in height. Most of the leaves are basal and 6 to 8 in. (15-20 cm) long, including the rather short petiole. The leaflets are numerous, crowded and opposite. All or most of the leaflets are 2 to 5 cleft almost to the base, thus appearing whorled; the individual segments are rounded. The flowers are either sweet or skunky in scent; the sweet scent is released when the corolla opens, and the skunky scent is produced by glands that cover the calyces (Galen & Kevan, 1983). The densely rounded inflorescence usually elongates a little when in fruit. The calyx is ¼ to ½ in. (7-12 mm) long when the flower is fully mature; the narrow calyx lobes taper to a pointed tip and are shorter than the corolla tube. The corolla is blue, more or less funnel shaped or tubular-funnel shaped, 1/2 to 1¼ in. (13-30 mm) long, often conspicuously longer than wide, and with lobes that are shorter than the tube.

Identification Tips: The taxon's closest relative within its range is *Polemonium elegans*, which is markedly different in morphology compared to *P. viscosum*. *P. viscosum* has leaflets that are so deeply cleft they appear to be whorled, while the leaflets of *P. elegans* are entire. The corolla and height of *P. viscosum* are longer compared to *P. elegans*. *P. viscosum* is up to 16 in. (20-41 cm) tall, with a corolla that is ½ to 1¼ in. (13-30 mm) long, while *P. elegans* reaches 6 in. (15 cm) in height, with a corolla that is ½ to 2/3 in. (12-15 mm) long.

Phenology: This species flowers in July and August.

Range: This species is known from the coast ranges of southern British Columbia to southwest Alberta, south to Arizona and New Mexico, though wholly absent in California. In Washington this species is found in Okanogan County.

Habitat: This species is found in open, rocky places such as talus slopes, rock outcrops, glacial cirques and alpine fellfields, at high altitudes commonly above the timber line from 6350 to 8200 feet (1935-2499 meters) elevation. Associated species at one or more sites include alpine fescue (*Festuca brachyphylla*), Davidson's penstemon (*Penstemon davidsonii*), pygmyflower (*Androsace septentrionalis*), cutleaf daisy (*Erigeron*

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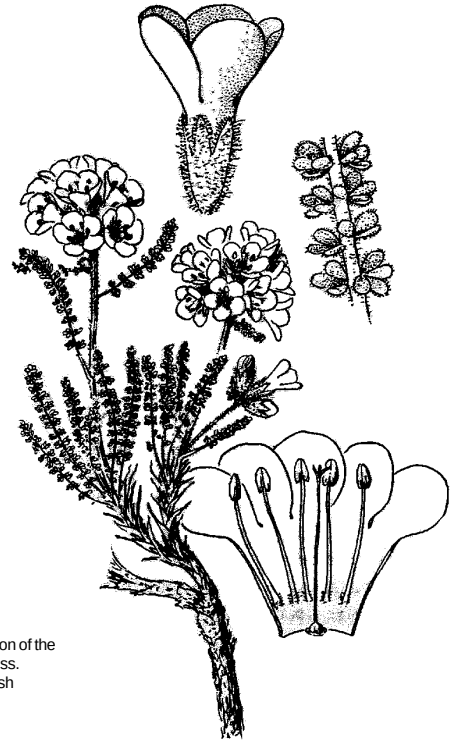
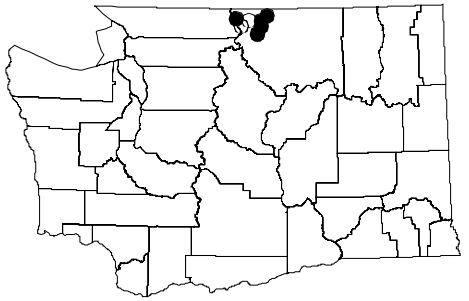


Illustration by Jeanne R. Janish

Known distribution of *Polemonium viscosum* in Washington



● Current (1980+)
○ Historic (older than 1980)

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compositus), snow cinquefoil (*Potentilla nivea*), spike trisetum (*Trisetum spicatum*), eight-petal mountain-avens (*Dryas octopetala*), alpine yellow fleabane (*Erigeron aureus*), twinflower sandwort (*Arenaria obtusiloba*), dunhead sedge (*Carex phaeocephala*), and whitebark pine (*Pinus albicaulis*).

Ecology: The flowers of *P. viscosum* are either sweet or skunky in scent, therefore attracting different pollinators (Galen and Kevan, 1983). Bees are attracted to the sweeter smelling flowers, while flies are attracted to mephitic flowers.

State Status Comments: There have been less than ten documented occurrences of the taxon since 1916.

Inventory Needs: All known occurrences should be revisited and their status assessed.

Threats and Management Concerns: Potential threats include cattle grazing and mining. Also, the fecundity of the species is apparently affected by ants, which reduce pollinating effectiveness of the sweet smelling flowers by chewing through reproductive organs in order to access nectar for consumption (Galen, 1983).

References:

Hitchcock, C.L., A. Cronquist, M. Ownbey, J.W. Thompson. 1959. *Vascular Plants of the Pacific Northwest* Part 4: *Ericaceae Through Campanulaceae.* University of Washington Press, Seattle, WA. 510 pp.

Galen, C. 1983. The effects of nectar thieving ants on seedset in floral scent morphs of *Polemonium viscosum*. Oikos 41: 245-249.

Galen, C. and P. Kavan, 1983. Bumblebee foraging and floral scent dimorphism: *Bombus kirbyellus* Curtis (Hymenoptera: Apidae) and *Polemonium viscosum* Nutt. (Polemoniaceae). Can. J. Botany 61: 1207-1213

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